

ABSTRACT

A method for forming an ohmic contact to silicon carbide for a semiconductor device comprises implanting impurity atoms into a surface of a silicon carbide substrate thereby forming a layer on the silicon carbide substrate having an increased concentration of impurity atoms, annealing the implanted silicon carbide substrate, and depositing a layer of metal on the implanted surface of the silicon carbide. The metal forms an ohmic contact "as deposited" on the silicon carbide substrate without the need for a post-deposition anneal step.